

In the Claims:

Please amend the claims as follows:

1. (currently amended) A power capacitor, comprising:
at least one capacitor element (~~2a-2d~~) enclosed in a substantially cylindrical container (~~1, 22-22e~~) of a material that substantially comprises a first polymer material, and wherein the container (~~1, 22-22e~~) on its envelope surface comprises a plurality of protrusions (~~23-23e~~) designed to extend the creepage distance along the container, ~~characterized in that~~ wherein the protrusions (~~23-23e~~) are substantially of a second polymer material, and ~~that~~ wherein the protrusions are formed with respect to their thickness and radial length so that they cool the capacitor.

2. (currently amended) A The power capacitor according to claim 1, ~~characterized in that~~ wherein the protrusions (~~23-23e~~) comprise at least one protrusion (~~23e~~) with a thickness (~~t2~~) in the interval of 0.2-10 mm and a radial length (~~L2~~) in the interval of 5-50 mm.

3. (currently amended) A The power capacitor according to claim 2, ~~characterized in that~~ wherein the protrusions (~~23-23e~~) comprise at least one protrusion with a thickness (~~t2~~) in the interval of 1-4 mm and a radial length (~~L2~~) in the interval of 10-25 mm.

4. (currently amended) A The power capacitor according to ~~any of the preceding claims,~~ ~~characterized in that~~ claim 1, wherein essentially the whole envelope surface of the power

capacitor is covered with a plurality of the protrusions (~~23-23e~~).

5. (currently amended) A The power capacitor according to claim 1, ~~characterized in that wherein~~ the protrusions (~~23-23e~~) comprise a plurality of smaller protrusions (~~23e, 23d~~) with a thickness (~~t2~~) in the interval of 0.2-10 mm and a radial length (~~L2~~) in the interval of 5-30 mm, and ~~that wherein~~ the small protrusions (~~23e, 23d~~) are arranged in the vicinity of at least one larger protrusion (~~23e~~) with a thickness (~~t3~~) in the interval of 2-10 mm and a radial length (~~L3~~) in the interval of 20-60 mm.

6. (currently amended) A The power capacitor according to claim 5, ~~characterized in that wherein~~ the protrusions comprise a pattern with a plurality of smaller protrusions (~~23d~~) and at least one larger protrusion (~~23e~~), and ~~that wherein~~ the pattern is repeated along essentially the whole envelope surface of the capacitor.

7. (currently amended) A The power capacitor according to claim 6, ~~characterized in that wherein~~ 10-20 smaller protrusions (~~23d~~) are arranged in the vicinity of at least one larger protrusion (~~23e~~).

8. (currently amended) A The power capacitor according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the protrusions are arranged with an axial pitch (~~a2~~) in the interval of 5-25 mm.

9. (currently amended) A The power capacitor according to ~~any of the preceding claims,~~

~~characterized in that~~ claim 1, wherein the capacitor element/s (2a-2d) is/are enclosed in at least one insulating medium (10, 21, 21a) which is in a state different from a liquid state within the working temperature interval of the capacitor.

10. (currently amended) A The power capacitor according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the first polymer material and the second polymer material are of the same kind of polymer materials.

11. (currently amended) A The power capacitor according to ~~any of the preceding claims, characterized in that~~ claim 1, wherein the insulating medium (10, 21, 21a), the container (1, 22-22e) and the protrusions (23-23e) of the container are all for the most part of rubber, preferably silicone rubber.

12. (currently amended) A The power capacitor according to claim 11, ~~characterized in that~~ wherein the insulating medium (10, 21, 21a), the container (1, 22-22e) and the protrusions (23-23e) of the container are of the same kind of rubber.

13. (currently amended) A The power capacitor according to ~~any of claims 1-10, characterized in that~~ claim 1, wherein the insulating medium (10, 21, 21a), the container (1, 22-22e) and the protrusions (23-23e) of the container are all for the most part of a thermoset.

14. (currently amended) A The power capacitor according to claim 13, ~~characterized in that~~ wherein the insulating medium (10, 21, 21a), the container (1, 22-22e) and the protrusions

(~~23-23e~~) of the container are of the same kind of thermoset, and ~~that~~ wherein the thermoset is based on one of the following materials: epoxy, polyurethane, polyester.

15. (currently amended) A The power capacitor according to ~~any of claims 11-14,~~ ~~characterized in that~~ claim 1, wherein the insulating medium (~~10, 21~~), the container (~~1, 22-22e~~) and the protrusions (~~23-23e~~) of the container are injection-~~moulded~~ molded in one single piece.

16. (currently amended) A The power capacitor according to ~~any of claims 1-9,~~ ~~characterized in that~~ claim 1, wherein the container (~~1, 22a-22e~~) and the protrusions (~~23a-23e~~) of the container are of different polymer materials.

17. (currently amended) A The power capacitor according to claim 16, ~~characterized in that~~ wherein the container (~~1, 22a-22e~~) is of polyethylene and the protrusions (~~23a-23e~~) are of silicone rubber or EPDM.

18. (currently amended) A The power capacitor according to claim 16, ~~characterized in that~~ wherein the container (~~1, 22a-22e~~) is of fibre-reinforced thermoset and the protrusions (~~23a-23e~~) are of silicone rubber or EPDM.

19. (currently amended) A The power capacitor according to ~~any of claims 16-18,~~ ~~characterized in that~~ claim 16, wherein the insulating medium (~~10, 21, 21a~~) is silicone in gel state.

20. (currently amended) A The power capacitor according to ~~any of claims 16-18,~~
~~characterized in that~~ claim 16, wherein the insulating medium (10, 21, 21a) is based on a
thermoset.

21. (currently amended) A The power capacitor according to ~~any of the preceding~~
~~claims, characterized in that~~ claim 1, wherein the capacitor comprises at least one tubular
element (20) running in the cylinder direction and extending through each capacitor element (2a-
2d).

22. (currently amended) A The power capacitor according to claim 21, ~~characterized in~~
~~that~~ wherein the tubular element (20) is reinforced by armouring the tubular element.

23. (currently amended) A The power capacitor according to ~~any of the preceding~~
~~claims, characterized in that~~ claim 1, wherein the container (1, 22a-22e) is reinforced by
armouring the container.

24. (currently amended) A The power capacitor according to ~~any of the preceding~~
~~claims, characterized in that~~ claim 1, wherein a diffusion layer is arranged on at least the inside
of the container (1, 22a-22e).

25. (currently amended) A method for manufacturing a power capacitor comprising at
least one capacitor element (2a-2d) enclosed in a substantially cylindrical container (1, 22a-22e)
made of a material that substantially comprises a first polymer material, and wherein the

container (1, 22a-22e) on its envelope surface comprises a plurality of protrusions (23-23e) designed so as to extend the creepage distance along the container, ~~characterized in that the~~ protrusions (23-23e) are made of a second polymer material, that the protrusions (23-23e) are formed with respect to their length and width so that they cool the capacitor, and ~~that the~~ capacitor element/s is/are encapsulated in a container (1, 22a-22e).

26. (currently amended) A The method according to claim 25, ~~characterized in that~~ further comprising:

bringing the capacitor element/s (2a-2d) ~~is/are brought~~ to be enclosed in at least one insulating medium which is in state other than liquid state within the working temperature interval of the capacitor.

27. (currently amended) A The method according to claim 26, ~~characterized in that~~ wherein the manufacture of the container, the application of the protrusions, the encapsulation of the capacitor element/s and the enclosure in the insulating medium are achieved by injection ~~moulding~~ molding.

28. (currently amended) A The method according to claim 27, ~~characterized in that~~ wherein the material is rubber, preferably silicone rubber.

29. (currently amended) A The method according to claim 27 ~~or 28, characterized in that~~ that 27, wherein the injection ~~moulding~~ molding occurs in one single step and with one single material.

30. (currently amended) A The method according to claim 27 or 28, ~~characterized in that 27, wherein~~ the injection ~~moulding~~ molding occurs in two steps, whereby in a first step the capacitor element/s (2a-2d) is/are enclosed in the insulating medium and in a second step the container (1, 22-22e) is manufactured, and the protrusions (23a-23e) are applied, and wherein in the first step a polymer material is used as material which has lower viscosity than the polymer material that is used in the second step.

31. (currently amended) A The method according to claim 25, ~~characterized in that wherein~~ a cylindrical polymer tube is provided for forming the container (1, 22-22e), ~~that wherein~~ the protrusions (23a-23e) are applied to the polymer tube, whereby the tube is preferably of polyethylene, and ~~that wherein~~ the capacitor element/s (2a-2d) is/are placed in the polymer tube.

32. (currently amended) A The method according to ~~any of claims characterized in that claim 25, wherein~~ each capacitor element (2a-2d) prior to injection ~~moulding~~ molding is applied to a tubular element (20) extending through each capacitor element.

33. (currently amended) A The method according to ~~of claim 32, characterized in that wherein~~ the tubular element (20) is reinforced by armouring.

34. (currently amended) A The method according to ~~any of claims 31-33, characterized in that claim 31, wherein~~ the protrusions (23a-23e) are applied to the container (1, 22a-22e) by

injection ~~moulding~~ molding, by winding them in a spiral around the container, or by providing them as prefabricated sleeve-like elements which are threaded onto the container.

35. (currently amended) A The method according to ~~any of the preceding claims,~~
~~characterized in that~~ claim 25, wherein the container (1, 22-22e) is reinforced by armouring.

36. (currently amended) A The method according to ~~any of the preceding claims,~~
~~characterized in that~~ claim 25, wherein a diffusion layer is applied to at least the inside of the container (1, 22-22e).

37. (currently amended) A The method according to claim 34, ~~characterized in that~~
wherein at least the outside of the container (1, 22-22e) is coated with silicone before the protrusions are applied.

38. (currently amended) A The method according to claim 31, ~~characterized in that~~
wherein the protrusions are applied to the container (1, 22-22e) by injection ~~moulding~~ molding
and ~~that~~ wherein the container is surface-modified prior to the injection ~~moulding~~ molding.

39. (currently amended) A The method according to ~~any of claims 31-38,~~ characterized
~~in that~~ claim 31, wherein a mechanical support is applied for the container prior to the injection
~~moulding~~ molding.

40. (currently amended) Use of a power capacitor according to ~~any of claims 1-24~~ claim

1 at voltages exceeding 1 kV, preferably at least 5 kV.

41. (currently amended) Use of a power capacitor according to ~~any of claims 1-24~~ claim
1 in a system for transmission of alternating current (AC).